

ABSTRACT

A waste gas treatment system having a burner part and a combustion chamber provided at a downstream side of the burner part. Combustion flames are formed from the burner part toward the combustion chamber, and a waste gas is introduced into the combustion flames, thereby oxidatively decomposing the waste gas. The combustion chamber is formed from an inner wall made of a fiber-reinforced ceramic material. Therefore, the wear of the inner wall due to heat and corrosion is minimized, and thermal stress cracking is also reduced. Consequently, the lifetime of the system increases, and the cost of equipment and the availability factor can be improved. In addition, because the inner wall exhibits no catalytic effect, the formation of thermal NO_x is suppressed, and it is possible to achieve environmental preservation and to simplify the treatment equipment.